

# **Preparing Your CALIFORNIA Drinking Water Consumer Confidence Report (CCR)**

**Guidance for Water Suppliers**

## **January 1, 2007 update**

(Information added since Jan 2006 has been highlighted in yellow; some out-of-date guidance has simply been deleted)

## Notice

This document provides guidance to water suppliers on the California Department of Health Services' (Department's) current interpretation of the California Consumer Confidence Report regulations that took effect May 26, 2001, and were revised September 1, 2006. This guidance is designed to implement State and national policy on these issues. The document does not, however, substitute for regulations; nor is it a regulation itself. Thus, it cannot impose legally-binding requirements on the Department or water suppliers, and may not apply to a particular situation based upon its circumstances. State decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. The Department may change this guidance in the future.

**NOTE:** Subsequent to the 2006 data CCR, there are certain to be changes in required content in terms of newly adopted Maximum Contaminant Levels, Public Health Goals, and other revised regulatory requirements. These will be posted on the Department's website, but the guidance itself may not be revised accordingly, most specifically, the appendices. Therefore, the water supplier should be aware that this guidance provides the details necessary to do only the CCR due July 2007.

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## Introduction

This guide is for water suppliers who are preparing Consumer Confidence Reports (CCR). It explains all the requirements for report content, format, and distribution required for conformance with the State regulations [Title 22, Chapter 15, Article 20] and law [California Health and Safety Code, Section 116470]. The State regulations took effect on May 26, 2001, and were subsequently amended on September 1, 2006, with the adoption of the Public Notification regulations.

The rationale for CCRs is that consumers have the right to know what is in their drinking water and where that water comes from. The reports help consumers to make informed choices that affect the health of themselves and their families. The reports also encourage consumers to consider the challenges of delivering safe drinking water. Educated consumers are more likely to help protect their drinking water sources and to understand the true costs of safe drinking water.

Water suppliers, states, and EPA are all working to educate consumers about the sources and quality of their drinking water, and to increase their involvement in decisions about it. EPA revised its public notification requirements to speed up notification of serious health threats and simplify notification of other violations. The Department adopted those revisions (see **adopted regulations** at [http://www.dhs.ca.gov/ps/ddwem/publications/Regulations/regulations\\_index.htm](http://www.dhs.ca.gov/ps/ddwem/publications/Regulations/regulations_index.htm)). Systems and states are including citizens in decisions regarding use of the drinking water state revolving fund and in planning source water assessment programs. Consumers who are familiar with the basic drinking water information in CCRs will be able to participate more effectively in these processes.

## I. What is a consumer confidence report?

In 1996, Congress amended the Safe Drinking Water Act, adding a requirement that water systems deliver to their customers a brief annual water quality report, similar to the Annual Water Quality Report (AWQR) that California water systems began distributing in 1990. However, the CCR regulatory requirements are more specific and detailed in terms of content and format than those for the AWQR. The CCR includes information on your source water, the levels of any detected contaminants, and compliance with drinking water regulations, plus some educational material. Most reports fit on a few sheets of paper. A report that contains *too much* information or is full of technical jargon can discourage consumers from learning about their drinking water.

## II. Who must prepare a consumer confidence report?

Every community water system and every nontransient-noncommunity water system must prepare and distribute a report.

A water wholesaler that sells water to another water system must provide the retailer with monitoring data and other information that will enable the retailer to produce a CCR, unless the two systems make a different contractual agreement. Wholesalers are not responsible for

creating the report for the retailer, nor are they responsible for providing data on contaminants that the retailer monitors (such as lead or trihalomethanes). Regardless of who produces the report, the retail system is responsible for ensuring that its customers receive a report containing all required content.

In some cases, a retailer will contract with the wholesaler to produce the report. There are several options in this relationship. If the retailer had no new data to add, it could simply send out the wholesaler's CCR with a cover letter explaining their relationship. If the retailer did need to add data, it might choose to reprint the wholesaler's CCR with a new title/letterhead and extra data. (Most retailers will at least need to add total coliform monitoring results.) Either of these approaches is acceptable.

### III. When must a water system distribute its report?

The reports are based on calendar-year data and must be delivered to consumers annually by July 1, so the first report prepared according to the state CCR requirements was due July 1, 2001. Wholesalers must deliver the previous calendar year's data/information to their buyers by April 1 each year (unless there is a separate agreement). A new community or nontransient-noncommunity water system must deliver its first report by July 1 of the year after its first full calendar year in operation, and annually thereafter.

### IV. What content is required in the report?

This guidance describes California's requirements for a CCR and suggests (using the words "we encourage," "should," and "may") other sections or explanations that will help your customers understand the report. **Note** that California requires more information and, in some cases, different information than the federal rule, so be sure to follow State regulations and this guidance, not the federal rule or guidance. If you are familiar with the Federal requirements, you should be aware of the following differences between the Federal and State rules; the State requires:

- Both community and nontransient-noncommunity water systems to distribute CCRs.
- Inclusion of public health goals (PHGs) in place of MCLGs for detected contaminants, unless no PHG has been adopted.
- Modified language for definitions.
- Additional definitions (PHG and primary drinking water standard).
- Modified language for contaminant sources and health effects.
- Inclusion of secondary MCLs for any detected contaminants along with any detected levels for sodium and hardness.
- Use of State MCLs only (USEPA MCLs are not required).
- In addition to information on how to obtain a copy of a completed source water assessment, both the completion date and a vulnerability summary written by the party conducting the assessment are required.
- All CCRs must include a notice in Spanish informing people that the information therein is important; notices in other languages are required if specific regulatory criteria is met [see Section 64481(l)].

**CHECKLIST FOR COMPLETED CCR**  
**Basic Consumer Confidence Report Requirements**  
*(please read on for details and recommended enhancements)*

**Water System Information**

- ☐ name/phone number of contact person
- ☐ information on public participation opportunities
- ☐ information in Spanish that report content is important
- ☐ information for other non-English speaking populations, if applicable

**Sources of Water**

- ☐ type, name, and location of water sources
- ☐ if source water assessment completed: completion date, availability, and vulnerability assessment

**Definitions:**

- ☐ MCL
- ☐ PHG
- ☐ MCLG
- ☐ primary drinking water standard
- ☐ others as needed (treatment technique, regulatory action level, MRDL, MRDLG, variances and exemptions)

**Detected Contaminants in One or More Tables**

- ☐ summary of data on detected regulated & unregulated contaminants [both federal and state lists]
- ☐ MCL or MRDL expressed as a number equal to or greater than 1.0 and the PHG (or MCLG or MRDLG) in same units
- ☐ TT or regulatory action level designation if there is no MCL or MRDL
- ☐ compliance monitoring data in MCL/MRDL units for year of report, with detected level and range of sample results (see regulations and guidance Appendix C)
- ☐ for turbidity: reporting differs (see regulations and guidance)
- ☐ for coliforms: reporting differs (see regulations and guidance)
- ☐ for lead/copper: 90<sup>th</sup> percentile value, # of sites sampled, and # sites exceeding action level
- ☐ for unregulated contaminants: average and range of contaminant detections
- ☐ if monitoring less than once a year: date of most recent sample, result, and statement that data is from most recent sampling
- ☐ known or likely source of each detected contaminant with an MCL/MRDL
- ☐ MCL/MRDL violations highlighted
- ☐ definitions of all units used in the table

**Elsewhere in Report**

- ☐ for MCL/MRDL violations: length of violation, health effects language (primary MCLs and MRDLs only), and explanation
- ☐ information on *Cryptosporidium*, radon, and other contaminants, if applicable

**Compliance with Other Drinking Water Regulations**

- ☐ explanation of violations, potential health effects, and steps taken to correct the violations
- ☐ explanation of variance/exemption, if applicable

**Required Educational Information**

- ☐ explanation of contaminants and their presence in drinking water
- ☐ warning for vulnerable populations about *Cryptosporidium*
- ☐ informational statements on nitrate, arsenic, and lead, if applicable

The Department encourages you to tailor the content of your CCR to local conditions. If you think that an added picture or graph would help your customers to understand your report, add it. If your customers would benefit from an explanation of your need for new treatment facilities, tell them. As long as any additional educational information is consistent with, and not detracting from, the purpose of the report, you may add it. For example, the CCR rule does not require a title for your report. However, you should give your report a title to catch the customer's attention. You may call the report a "Consumer Confidence Report," a "Water Quality Report," or choose another title.

Customers are most interested in a clear statement of whether or not their drinking water meets all standards. Although it is not required by the regulations, you will help your customers if you tell them whether their water met all drinking water standards. Be cautious in using the word "safe" since water that meets standards and is safe for most people might not be safe for infants, chemotherapy patients, or people with HIV/AIDS.

*EXAMPLE – Last year, as in years past, your tap water met all EPA and State drinking water health standards. Local Water vigilantly safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. [or, if you had a violation, begin with: Last year, we conducted more than \_\_\_ tests for over 80 contaminants. We only detected \_\_\_ of these contaminants, and found only \_\_\_ at a level higher than the State allows. As we told you at the time, our water temporarily exceeded drinking water standards. For more information, see the paragraph marked **Violation** on the back.] This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State Standards. We are committed to providing you with information because informed customers are our best allies.*

## **Item 1: Water system information**

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Identify the name of your system, and provide the following information about it:

- The telephone number of a person at the water system who can answer questions about the report.
- A list of known opportunities for public participation in decisions that affect drinking water quality (e.g., time and place of regularly-scheduled water board or city/county council meetings). If you do not have regularly-scheduled meetings, tell customers how to get information when meetings are announced.

All systems in California must include information in Spanish expressing the importance of the report or offer additional information (i.e., a telephone number or address where Spanish-speaking residents may contact the system to obtain a translated copy of the report in Spanish or assistance in Spanish).

*In addition*, for each non-English speaking group other than Spanish that exceeds 1,000 residents or 10% of the residents in the community, whichever is less, the system must include information in the appropriate language(s) expressing the importance of the report or offer

additional information in that language (i.e., a telephone number or address where such residents may contact the system to obtain a translated copy of the report or assistance in the appropriate language). The Department will make the final determination of which systems need to include this information.

*EXAMPLE – This report contains important information about your drinking water. Translate it, or speak with someone who understands it.*

- **Spanish:** Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.
- **French:** Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.
- **Additional Languages:** See Appendix E.

## **Item 2: Source(s) of water**

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Describe your water type (ground water, surface water, or a blend), the commonly-used name(s) (if such a name exists), and the locations of your water source(s). We encourage you to provide a simple map of your system's sources. Note that water systems currently have the flexibility to address security concerns. Listing the water body where the intake is located for a surface water source and the name of the principal aquifer for a ground water source would be appropriate.

Explaining your various interconnections and back-up sources may be difficult, but it is important that consumers understand that the source of their water may vary during the year. Remember to include in your table of detected contaminants monitoring data for these "extra" sources if you use water from them. If your situation is complex, you may need to work with someone from the Department or Local Primacy Agency (LPA) to decide what information belongs in your report.

If a source water assessment has been completed, tell customers the date it was completed (or last updated) and where to get a copy, and provide a brief summary of your source water's vulnerability to contamination based on the assessment findings. If the Department or LPA conducted the assessment, it will provide the summary for you to include. If you conducted your own assessment, you may write the summary yourself. The following is an example provided by the Drinking Water Source Assessment and Protection Program:

*EXAMPLE – An assessment of the drinking water source(s) for XYZ water system was completed in month and year. The source(s) are considered most vulnerable to the following activities associated with contaminants detected in the water supply: \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_. In addition, the source is considered most vulnerable to these activities: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.*

*A copy of the complete assessment is available at CDHS District Office address or Water System Address. You may request a summary of the assessment be sent to you by contacting CDHS district engineer or Water System Representative at phone number.*



If you do not have information from the source water assessment, we encourage you to include any other information about potential sources of contamination that is readily available to you; for example, information contained in a sanitary survey. This is your opportunity to educate your customers about the impacts that they and others have on the quality of their source water. You may want to provide pollution prevention tips or information on local watershed cleanup activities.

### Item 3: Definitions

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Every CCR must include definitions of key terms that consumers will need to understand the contaminant data. You must use the definitions listed below.

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
- **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.
- **Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Include the following definitions only if your report contains information on a detected contaminant that is regulated by a regulatory action level (e.g., lead) or a treatment technique (e.g., turbidity):

- **Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.
- **Regulatory Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Include the following definition only if your water system operated under a variance of exemption during the calendar year that the report describes:

- **Variances and Exemptions:** Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

## Item 4: Detected contaminants

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An essential part of the report is the table that shows the level of each detected contaminant and, if more than one sample is collected for compliance purposes, the table must show the range of levels of that contaminant you found during the year. See Appendix C for how to interpret monitoring data and determine the levels to enter in the tables.

A detected contaminant is any contaminant detected at or above its detection level for purposes of reporting (DLR) (See Appendix B). Do not include contaminants in the table that are not detected or are detected below the DLR. If you sometimes distribute water from emergency or back-up sources, you generally need to include monitoring results from these sources in the ranges of detections that you report in the table, unless the source's contribution is insignificant (e.g., one day per year).

The main table of detected contaminants must contain only data about (1) regulated contaminants [contaminants subject to an MCL, MRDL, treatment technique (TT), or regulatory action level (AL)] and (2) unregulated contaminants for which EPA or the Department requires monitoring under 40 CFR 141.40 or California Code of Regulations, Title 22, Chapter 15, Section 64450. Sodium and hardness data must also be included for consumers' information. You are no longer required to include data collected under the federal Information Collection Rule (ICR). See page 14 for special instructions about *Cryptosporidium* and radon.

You may make several tables to separate regulated contaminants from unregulated contaminants. You may want to organize your table(s) by contaminant type (e.g., microbial, inorganic) or sampling site (e.g., treatment plant, distribution system). Report any additional monitoring data in another section of the CCR, separated from the regulated contaminant data (e.g., data specified in the regulations). If you want to list all the contaminants that you monitored but did not detect, you must do so outside of the table(s) of detected contaminants.

To ensure that consumers can easily compare detected contaminant levels to their MCLs/MRDLs, your table must display the MCL/MRDL for each contaminant in units that express it as a number equal to or greater than 1.0. For contaminants with primary MCLs, report the PHG (use the MCLG if no PHG has been set) and level of the detected contaminant in the same units as the MCL. For monitoring under the Stage 1 Disinfectants and Disinfection Byproducts Rule, use the same approach for the MRDL and MRDLG. Appendices A-1 and A-2 show the conversion factor for each contaminant. For example, atrazine is usually reported in mg/L. It is easier for customers to see that your water contains atrazine at a level two times lower than the MCL if you report the MCL as 1 ppb and the detected level as 0.5 ppb than if you were to report the MCL as 0.001 mg/L and the detected level as 0.0005 mg/L. In this case, you convert by multiplying the detected level and MCL by 1000. When you round results to determine compliance, round before multiplying the results by these factors.

The CCR includes data from monitoring completed during the past calendar year. However, if you have monitoring waivers, or for another reason monitor less than once per year, use your most recent data. For example, if you monitor once every three years for lindane and detect lindane in a sample, report that detected level each of the three years until you take a new sample. If the report contains detection data that is not from the calendar year indicated, the table must show the date of monitoring and the report must contain a brief statement explaining that the data presented is from the most recent monitoring done in compliance with regulations.

*EXAMPLE – The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.*

You do not need to report monitoring results that are more than nine years old.

The table must contain, for each detected contaminant:

- 1) The MCL/MRDL expressed as a number equal to or greater than 1.0 (see Appendices A-1 and A-2). If the contaminant is regulated by a TT, put the letters “TT” in place of the MCL. If the contaminant has a regulatory AL, specify the applicable regulatory AL.
- 2) The PHG (or MCLG or MRDLG if no PHG has been set), expressed in the same units as the primary MCL or MRDL (see Appendix A-1). Note that secondary MCLs do not have PHGs/MCLGs because secondary MCLs are set to protect the aesthetics of water and PHGs/MCLGs are based on health concerns.
- 3) The level of that contaminant expressed in the same units as the MCL/MRDL (see Appendix C for examples):
  - If compliance is determined by the results of a single sample, an initial sample averaged with one or two confirmation sample(s), or an average of four quarterly or six monthly samples, report the results as follows:
    - ✓ For a single sampling site, or multiple sampling sites for which data is being individually listed in the CCR, include the sample result. If more than one sample was collected, include the average and range of the sample results.
    - ✓ For more than one sampling site, each of which has been sampled only once and for which data is being summarized together in the CCR, include the average and range of the sample results. If the waters from the sampling sites are entering the distribution system at the same point, a flow-weighted average may be included.
    - ✓ For multiple sampling sites, one or more of which has been sampled more than once and for which data is being summarized together in the CCR, include the average of the sampling site averages and the range of sample results for all the sites. If the water from the sampling sites is entering the distribution system at the same point, a flow-weighted average may be included.

- If compliance is determined by a running annual average of all the samples taken from a sampling point (e.g., chemical contaminants), include the highest annual average (as reported to the Department for compliance purposes) and the range of detections.
- If compliance is determined on a system-wide basis by a running annual average of all sampling point averages (e.g., TTHMs), include the highest running annual average and the range of detections.
- If compliance with the MCL is determined by monitoring after treatment is installed to remove a contaminant, include the average level detected in the water entering the distribution system and the range of sample results.
- If an MCL/MRDL compliance determination was made in the year for which sample results are being reported and the determination was based on an average of results from both the previous and reporting years, include the highest compliance determination average and the range based only on results from the year for which data is being reported.
- For turbidity (when reported pursuant to Section 64652.5 – turbidity as a TT for systems that have met criteria for avoiding filtration), include the highest single measurement found in any month. You should explain the reasons for measuring turbidity.

*EXAMPLE – Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.*

- For turbidity (when reported pursuant to Section 64653 – turbidity as a TT for systems that filter and use turbidity as an indicator of filtration performance), include the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in Section 64653 for the relevant filtration technology. You should explain the reasons for measuring turbidity.

*EXAMPLE – Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.*

- For lead and/or copper, include the 90<sup>th</sup> percentile value from the most recent sampling (if it is a number greater than zero), the number of sites sampled, and the number of sites that exceeded the action level. Do not report related water quality parameter data.
- For total coliforms (systems that collect fewer than 40 samples per month), include the highest number of positive samples collected in any one month.
- For total coliforms (systems that collect 40 or more samples per month), include the highest percentage of positive samples collected in any one month.
- For fecal coliforms or *E. coli*, include the number of positive samples taken that year.

- If you detect beta particles in your water at or above 50 pCi/L, you should report the detected level in pCi/L.
- 4) The likely source of that contaminant, to the best of your knowledge. If you have reliable information, the report should identify a specific point source, such as “Al’s chicken houses” or the “Super-Shiny Paper Mill”. If you lack reliable information on the specific source of a contaminant, include one or more of the typical sources listed in Appendices A-1 (for chemicals with primary MCLs and MRDLs) and A-2 (for chemicals with secondary MCLs) that is most applicable to your situation.
  - 5) For any contaminant detected in violation of a MCL/MRDL/TT or exceeding a regulatory AL, clearly highlight in the table the violation or exceedance. This indication could, for example, take the form of a different color type, a larger or bolder font, or a large star. Near, but not in, the table, include an explanation of the length of the violation/exceedance, potential adverse health effects (from Appendix A-1 for primary MCLs and MRDLs only), and actions you took to address the violation/exceedance.
  - 6) If you have detected unregulated contaminants for which Department or federal rules require monitoring (for example, Section 64450 or 40 CFR 141.40, except *Cryptosporidium*) include the average of all of the year’s monitoring results and the range of detections. See Appendices A-3 and A-4 for lists of these contaminants.

We encourage you to include more information on the potential health effects of these contaminants if the results indicate a health concern. We consider any detection above a proposed MCL, California notification level, or EPA health advisory level to indicate concern. You may call the Safe Drinking Water Hotline (800-426-4791) for this information or find it on EPA’s website (<http://www.epa.gov/safewater/hfacts.html>). California notification levels are available on the Department’s website (<http://www.dhs.ca.gov/ps/ddwem/chemicals/AL/notificationlevels.htm>). For these contaminants, the Department recommends that the report contain an explanation of the significance of the results, noting the existence of the California notification level, EPA health advisory or proposed MCL.

You may wish to explain the reasons for unregulated contaminant monitoring with a statement like the following.

*EXAMPLE – Unregulated contaminant monitoring helps EPA and the California Department of Health Services to determine where certain contaminants occur and whether the contaminants need to be regulated.*

## Multiple distribution systems

If your system supplies water through two or more distribution systems that use different raw water sources and are not physically interconnected, you may want to include in the table a separate column of detection data for each service area. If you do, describe the area that each distribution system serves.

## Reporting on *Cryptosporidium* and radon

If you monitored for *Cryptosporidium* and/or radon and did not detect them, you do not need to discuss the monitoring or the results in your report.

If your system has performed monitoring that indicates the presence of *Cryptosporidium* either in its source water or its finished water, include the following information in your report:

- A summary of the results of the monitoring. You may choose whether or not to report the actual analytical results as a part of this summary.
- An explanation of the significance of the results. Tell customers if they need to be concerned by the information that the CCR provides.

*EXAMPLE – Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.*

If your system has performed monitoring that indicates the presence of **radon** in its finished water, include in the report:

- The results of monitoring (the analytical values reported by the lab).
- An explanation of the significance of the results. Tell customers if they need to be concerned by the information that the CCR provides.

*EXAMPLE – Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program or call EPA's Radon Hotline (800-SOS-RADON).*

## Reporting on additional monitoring

If your system has performed voluntary monitoring that indicates the presence of non-regulated contaminants in the finished water, we strongly encourage you to report any results that may indicate a health concern. Public knowledge of potential problems is in the interest of you and your customers. We consider any detection above a proposed MCL, EPA health advisory level, or California notification level to indicate concern. Call the Safe Drinking Water Hotline or visit EPA's web site for this information. California notification levels are available at the Department's website. For these contaminants, the Department recommends that the report contain:

- Monitoring results.
- Explanation of the significance of the results, noting the existence of the California notification level, EPA health advisory or proposed MCL.

## Item 5: Compliance with other drinking water regulations

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If your water system violated one of the following requirements during the year covered by the report, your CCR must describe the violation(s). Just as you must explain the potential health effects of any MCL/MRDL violation, you must provide a clear and readily understandable explanation of any other violation, potential adverse health effects (if any), and the steps the system has taken to correct the violation.

- Treatment techniques
  - (1) Filtration and Disinfection (Surface Water Treatment Rule requirements; and the federal Interim Enhanced Surface Water Treatment Rule and Long Term Stage 1 Enhanced Surface Water Treatment Rule – See “Microbial Contaminants” under Appendix A-1). If the violation was a failure to install adequate filtration or disinfection equipment or processes, or there was a failure of that equipment or process, include the health effects language for *Giardia lamblia*, viruses, heterotrophic plate count bacteria, *Legionella*, and *Cryptosporidium* listed in Appendix A-1.
  - (2) Disinfection Byproduct Precursors (Disinfectants and Disinfection Byproducts Rule – See “Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors” under Appendix A-1). If the violation was a failure to comply with the enhanced coagulation or enhanced softening requirement, include the health effects language for control of DBP precursors (TOC) listed in Appendix A-1.
  - (3) Lead and copper control requirements. If the violation was a failure to meet corrosion control treatment, source water treatment, or lead service line requirements, include the health effects language for lead or copper listed in Appendix A-1.
  - (4) Acrylamide and Epichlorohydrin. If you violate either treatment technique, you must include the relevant health effects language from Appendix A-1.



- Monitoring and reporting of compliance data. If your system failed to take the sample on time, the report should say “health effects unknown”. If your system took the samples accurately and on-time, but mailed the results late, you don’t need to discuss health effects.
- Record keeping requirements.
- Special monitoring requirements.<sup>1</sup>
- Violation of a variance, an exemption, or an administrative or judicial order.

## Variances and Exemptions

If your system operated under a variance or exemption at any time during the year covered by the report, include an explanation of the variance or exemption, the date that it was issued, why it was granted, when it is up for renewal, and a status report on what the system is doing to remedy the problem (e.g., install treatment, find alternative sources of water, etc.) or otherwise comply with the terms and schedules of the variance or exemption. Also, tell your customers how they may participate in the review or renewal of the variance or exemption.

## Item 6: Educational information

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Your CCR must prominently display the following statements:

- *Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA’s Safe Drinking Water Hotline (1-800-426-4791).*
- *Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).*

Your report must contain basic information about drinking water contaminants. Use the following language:

- *The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.*

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<sup>1</sup> Results of monitoring under section 64450 need only be included for 5 years from the date of the last sampling.



- *Contaminants that may be present in source water include:*
  - ✓ *Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
  - ✓ *Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.*
  - ✓ *Pesticides and herbicides, **that** may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.*
  - ✓ *Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.*
  - ✓ *Radioactive contaminants, **that** can be naturally-occurring or be the result of oil and gas production and mining activities.*
- *In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.*

## **Special requirements for Nitrate, Arsenic, and Lead**

You must include in your report the relevant special educational statement provided below about that contaminant if your water contains nitrate, arsenic, lead, and/or trihalomethanes at certain levels. You may include additional information, either before or after the required statement.

- **Nitrate** above 23 ppm (50% of the MCL), but below 45 ppm (the MCL) (as nitrate, NO<sub>3</sub>):

*Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.*

If a utility cannot demonstrate to the Department with at least five years of the most current monitoring data that its nitrate levels are stable, it must also add the following language to the preceding statement on nitrate: *Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.*

- **Arsenic** above 5 ppb up to 10 ppb:

*While your drinking water meets the current **EPA** standard for arsenic, it does contain low*

*levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The California Department of Health Services continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.*

- **Lead** above 15 ppb (the regulatory AL) in more than 5%, and up to and including 10%, of sites sampled (if your system samples fewer than 20 sites and has even one sample above the AL, include the standard explanation for an AL exceedance):

*Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791).*

## Other educational information

You are not limited to providing only the required information in your report. Although the regulations do not require information on treatment, the Department strongly recommends that water systems use the CCR as an opportunity to inform consumers about the treatment processes applied to their water, particularly fluoridation if it is used. Even though there is a regulation requiring that consumers be informed when fluoridation is initiated, or taken off line for an extended period, it is quite likely that many consumers are unaware that fluoride is being added. This information could potentially affect decisions they make regarding fluoride supplements and treatments.

You may use the report to explain (or include a diagram of) your treatment processes, source water protection efforts, or the costs of your making water safe to drink. You may include a statement from the mayor or general manager. Or you could educate your customers about water conservation, taste and odor issues, affiliations with programs such as the Partnership for Safe Water, and so forth. You may want to provide the address for EPA's drinking water website (<http://www.epa.gov/safewater/>). The only limitation on this information is that it must not interfere with the educational purpose of the report.

## V. What should the report look like?

You don't need a fancy computer or a graphic designer to produce a CCR that is easy to read and inviting to your customers. The best way to design your report is to spend some time looking at other reports. See what catches your eye, and copy it. A few things to consider:

- Write short sentences. Keep your paragraphs short, too.
- Don't make your text size too small. You might want to squeeze a few extra sentences in your report, but if you add too much, people might ignore the entire report.

- Give a draft of your CCR to relatives or friends who aren't drinking water experts and ask them if it makes sense. Ask customers for their comments when you publish the report.
- Don't distract from your main message with graphics and/or pictures that don't complement your message.
- Be as simple and straight forward as possible. Avoid acronyms, initials, and jargon.
- Consider printing the report on recycled paper and taking other steps to make the report "environmentally friendly". If you hope to get your customers involved in protecting source water, set a good example for them.

## **VI. How must a water system distribute its report?**

You must mail or deliver a copy of your consumer confidence report to each of your customers, and make a good faith effort to get reports to non-bill-paying consumers. Deliver your CCR annually by July 1 of each year. You may include the reports with water bills, if feasible, or you may send the reports as separate mailers. Keep your report on file for **three** years, and make it available to the public upon request.

Send a copy to the Department or LPA, depending on who oversees your regulatory compliance, when you mail it to customers. Within three months of the report's due date, submit to the Department a certification (see Appendix D for a sample form) that you distributed the report, and that its information is correct and consistent with the compliance monitoring data previously submitted to the Department. In addition, if your system is investor-owned, send a copy of the CCR to the California Public Utilities Commission **by July 1**. We also encourage you to send copies to local TV and radio stations and newspapers.

It is in your system's interest to spread the word about the quality of its water. Since many consumers of your water may not receive bills (people such as apartment renters), you must make a "good faith" effort to reach non-bill paying consumers. A "good faith" effort means selecting the most appropriate method(s) to reach those consumers from a menu of options that your primacy agency recommends. Those options include but are not limited to:

- Posting the report on the Internet.
- Mailing the report to postal patrons in metropolitan areas.
- Advertising the availability of the report in news media (e.g., newspapers, TV, and radio).
- Publishing the report in a local newspaper.
- Posting the report in public places such as cafeterias of public buildings, libraries, churches, and schools.
- Delivering multiple reports for distribution by single-billed customers such as apartment buildings or large private employers.

- Delivering the report to community organizations.

Systems that serve 100,000 or more people must post their reports on the Internet. The Department encourages other systems to post their reports as well. Many local governments have sites where you could post your report, even if your system itself does not have a site. EPA will make links from its website (<http://www.epa.gov/safewater/>) to all the reports of which it is aware.

## Appendix A-1: Regulated Contaminants with Primary MCLs, MRDLs, TTs, or ALs

### Key

**AL** = Regulatory Action Level

**MCL** = Maximum Contaminant Level

**PHG** = Public Health Goal

**MCLG** = Maximum Contaminant Level Goal

**MRDL** = Maximum Residual Disinfectant Level

**MRDLG** = Maximum Residual Disinfectant Level Goal

**MFL** = million fibers per liter

**NTU** = Nephelometric Turbidity Units

**TT** = Treatment Technique

**pCi/L** = picocuries per liter (a measure of radioactivity)

**ppm** = parts per million, or milligrams per liter (mg/L)

**ppb** = parts per billion, or micrograms per liter (µg/L)

**ppt** = parts per trillion, or nanograms per liter

**ppq** = parts per quadrillion, or picograms per liter

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
<b>Microbiological Contaminants</b>						
Total Coliform Bacteria	MCL: <b>Systems that collect ≥40 samples/month:</b> more than 5.0% of monthly samples are positive; <b>Systems that collect &lt;40 samples/month:</b> no more than 1 positive monthly sample			(0)	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform and <i>E. coli</i>	MCL: a routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive			(0)	Human and animal fecal waste	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.
Turbidity	TT	-	TT	n/a	Soil runoff	Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Giardia lamblia Viruses Heterotrophic plate count bacteria Legionella Cryptosporidium		Surface water treatment = TT		HPG = n/a; Others = (0)	Naturally present in the environment	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
<b>Radioactive Contaminants</b>						
Gross Beta particle activity (pCi/L)	50 <sup>(a)</sup>	-	50	(0)	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
(a) Effective 6/11/2006, the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.						
Strontium-90 (pCi/L)	8	-	8	0.35	Decay of natural and man-made deposits	Some people who drink water containing strontium-90 in excess of the MCL over many years may have an increased risk of getting cancer.
Tritium (pCi/L)	20,000	-	20,000	400	Decay of natural and man-made deposits	Some people who drink water containing tritium in excess of the MCL over many years may have an increased risk of getting cancer.
Gross Alpha particle activity (pCi/L)	15	-	15	(0)	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/L)	5	-	5	(0)	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (pCi/L)	20	-	20	0.43	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
<b>Inorganic Contaminants</b>						
Aluminum (ppm)	1	-	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes	Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.
Antimony (ppb)	0.006	1000	6	20	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimony in excess of the MCL over many years may experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb)	0.010 <sup>(b)</sup>	1000	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.
(b) Effective 1/23/2006, the federal arsenic MCL is 0.010 mg/L. A new state MCL has not yet been adopted and remains as 0.5 mg/L (or 50 ppb). If the arsenic concentration is above 5 up to 10 ppb, refer to pages 17 and 18 for the special educational statement to include in the CCR.						
Asbestos (MFL)	7 MFL	-	7	7	Internal corrosion of asbestos cement water mains; erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium (ppm)	1	-	1	2	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.
Beryllium (ppb)	0.004	1000	4	1	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries	Some people who drink water containing beryllium in excess of the MCL over many years may develop intestinal lesions.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Cadmium (ppb)	0.005	1000	5	0.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints	Some people who drink water containing cadmium in excess of the MCL over many years may experience kidney damage.
Chromium (ppb)	0.05	1000	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.
Copper (ppm)	AL = 1.3	-	AL = 1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Cyanide (ppb)	0.15	1000	150	150	Discharge from steel/metal, plastic, and fertilizer factories	Some people who drink water containing cyanide in excess of the MCL over many years may experience nerve damage or thyroid problems.
Fluoride (ppm)	2.0	-	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.



Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Lead (ppb)	AL = 0.015	1000	AL = 15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.
Mercury [inorganic] (ppb)	0.002	1000	2	1.2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland	Some people who drink water containing mercury in excess of the MCL over many years may experience mental disturbances, or impaired physical coordination, speech and hearing.
Nickel (ppb)	0.1	1000	100	12	Erosion of natural deposits; discharge from metal factories	Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects.
Nitrate (ppm)	45 (as nitrate)	-	45 (as nitrate)	45 (as NO3)	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
Nitrite (ppm)	1 (as nitrogen)	-	1 (as nitrogen)	1 as N	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL may quickly become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blueness of the skin.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Selenium (ppb)	0.05	1000	50	(50)	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years may experience hair or fingernail losses, numbness in fingers or toes, or circulation system problems.
Thallium (ppb)	0.002	1000	2	0.1	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	Some people who drink water containing thallium in excess of the MCL over many years may experience hair loss, changes in their blood, or kidney, intestinal, or liver problems.
<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>						
2,4-D (ppb)	0.07	1000	70	70	Runoff from herbicide used on row crops, range land, lawns, and aquatic weeds	Some people who use water containing the weed killer 2,4-D in excess of the MCL over many years may experience kidney, liver, or adrenal gland problems.
2,4,5-TP [Silvex] (ppb)	0.05	1000	50	25	Residue of banned herbicide	Some people who drink water containing Silvex in excess of the MCL over many years may experience liver problems.
Acrylamide	TT	-	TT	(0)	Added to water during sewage/wastewater treatment	Some people who drink water containing high levels of acrylamide over a long period of time may experience nervous system or blood problems, and may have an increased risk of getting cancer.
Alachlor (ppb)	0.002	1000	2	4	Runoff from herbicide used on row crops	Some people who use water containing alachlor in excess of the MCL over many years may experience eye, liver, kidney, or spleen problems, or experience anemia, and may have an increased risk of getting cancer.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Atrazine (ppb)	0.001	1000	1	0.15	Runoff from herbicide used on row crops and along railroad and highway right-of-ways	Some people who use water containing atrazine in excess of the MCL over many years may experience cardiovascular system problems or reproductive difficulties.
Bentazon (ppb)	0.018	1000	18	200	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses	Some people who drink water containing bentazon in excess of the MCL over many years may experience prostate and gastrointestinal effects.
Benzo(a)pyrene [PAH] (ppt)	0.0002	1,000,000	200	4	Leaching from linings of water storage tanks and distribution lines	Some people who use water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb)	0.018	1000	18	1.7	Leaching of soil fumigant used on rice and alfalfa, and grape vineyards	Some people who use water containing carbofuran in excess of the MCL over many years may experience problems with their blood, or nervous or reproductive system problems.
Chlordane (ppt)	0.0001	1,000,000	100	30	Residue of banned insecticide	Some people who use water containing chlordane in excess of the MCL over many years may experience liver or nervous system problems, and may have an increased risk of getting cancer.
Dalapon (ppb)	0.2	1000	200	790	Runoff from herbicide used on rights-of-way, and crops and landscape maintenance	Some people who drink water containing dalapon in excess of the MCL over many years may experience minor kidney changes.
Di(2-ethylhexyl) adipate (ppb)	0.4	1000	400	200	Discharge from chemical factories	Some people who drink water containing di(2-ethylhexyl) adipate in excess of the MCL over many years may experience general <b>weight loss, liver enlargement,</b> or reproductive difficulties.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Di(2-ethylhexyl) phthalate (ppb)	0.004	1000	4	12	Discharge from rubber and chemical factories; inert ingredient in pesticides	Some people who use water containing di(2-ethylhexyl) phthalate <b>well</b> in excess of the MCL over many years may experience liver problems or reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane [DBCP] (ppt)	0.0002	1,000,000	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit	Some people who use water containing DBCP in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Dinoseb (ppb)	0.007	1000	7	14	Runoff from herbicide used on soybeans, vegetables, and fruits	Some people who drink water containing dinoseb in excess of the MCL over many years may experience reproductive difficulties.
Dioxin [2,3,7,8-TCDD] (ppq)	0.00000003	1,000,000,000	30	(0)	Emissions from waste incineration and other combustion; discharge from chemical factories	Some people who use water containing dioxin in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Diquat (ppb)	0.02	1000	20	15	Runoff from herbicide use for terrestrial and aquatic weeds	Some people who drink water containing diquat in excess of the MCL over many years may get cataracts.
Endothall (ppb)	0.1	1000	100	580	Runoff from herbicide use for terrestrial and aquatic weeds; defoliant	Some people who drink water containing endothall in excess of the MCL over many years may experience stomach or intestinal problems.
Endrin (ppb)	0.002	1000	2	1.8	Residue of banned insecticide and rodenticide	Some people who drink water containing endrin in excess of the MCL over many years may experience liver problems.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Epichlorohydrin	TT	-	TT	(0)	Discharge from industrial chemical factories; impurity of some water treatment chemicals	Some people who drink water containing high levels of epichlorohydrin over a long period of time may experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide [EDB] (ppt)	0.00005	1,000,000	50	10	Discharge from petroleum refineries; underground gas tank leaks; banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops	Some people who use water containing ethylene dibromide in excess of the MCL over many years may experience liver, stomach, reproductive system, or kidney problems, and may have an increased risk of getting cancer.
Glyphosate (ppb)	0.7	1000	700	1000	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years may experience kidneys problems or reproductive difficulties.
Heptachlor (ppt)	0.00001	1,000,000	10	8	Residue of banned insecticide	Some people who use water containing heptachlor in excess of the MCL over many years may experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt)	0.00001	1,000,000	10	6	Breakdown of heptachlor	Some people who use water containing heptachlor epoxide in excess of the MCL over many years may experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene (ppb)	0.001	1000	1	0.03	Discharge from metal refineries and agricultural chemical factories; byproduct of chlorination reactions in wastewater	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years may experience liver or kidney problems, or adverse reproductive effects, and may have an increased risk of getting cancer.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Hexachlorocyclopentadiene (ppb)	0.05	1000	50	50	Discharge from chemical factories	Some people who use water containing hexachlorocyclopentadiene in excess of the MCL over many years may experience kidney or stomach problems.
Lindane (ppt)	0.0002	1,000,000	200	32	Runoff/leaching from insecticide used on cattle, lumber, gardens	Some people who drink water containing lindane in excess of the MCL over many years may experience kidney or liver problems.
Methoxychlor (ppb)	0.03	1000	30	30	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	Some people who drink water containing methoxychlor in excess of the MCL over many years may experience reproductive difficulties.
Molinate [Ordram] (ppb)	0.02	1000	20	n/a	Runoff/leaching from herbicide used on rice	Some people who use water containing molinate in excess of the MCL over many years may experience reproductive effects.
Oxamyl [Vydate] (ppb)	0.05	1000	50	50	Runoff/leaching from insecticide used on field crops, fruits and ornamentals, especially on apples, potatoes, and tomatoes	Some people who drink water containing oxamyl in excess of the MCL over many years may experience slight nervous system effects.
PCBs [Polychlorinated biphenyls] (ppt)	0.0005	1,000,000	500	(0)	Runoff from landfills; discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years may experience changes in their skin, thymus gland problems, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol (ppb)	0.001	1000	1	0.4	Discharge from wood preserving factories, cotton and other insecticidal/herbicidal uses	Some people who use water containing pentachlorophenol in excess of the MCL over many years may experience liver or kidney problems, and may have an increased risk of getting cancer.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Picloram (ppb)	0.5	1000	500	500	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years may experience liver problems.
Simazine (ppb)	0.004	1000	4	4	Herbicide runoff	Some people who use water containing simazine in excess of the MCL over many years may experience blood problems.
Thiobencarb (ppb)	0.07	1000	70	70	Runoff/leaching from herbicide used on rice	Some people who use water containing thiobencarb in excess of the MCL over many years may experience body weight and blood effects.
Toxaphene (ppb)	0.003	1000	3	0.03	Runoff/leaching from insecticide used on cotton and cattle	Some people who use water containing toxaphene in excess of the MCL over many years may experience kidney, liver, or thyroid problems, and may have an increased risk of getting cancer.
<b>Volatile Organic Contaminants</b>						
Benzene (ppb)	0.001	1000	1	0.15	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills	Some people who use water containing benzene in excess of the MCL over many years may experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Carbon tetrachloride (ppt)	0.0005	1,000,000	500	100	Discharge from chemical plants and other industrial activities	Some people who use water containing carbon tetrachloride in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
1,2-Dichlorobenzene (ppb)	0.6	1000	600	600	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichlorobenzene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
1,4-Dichlorobenzene (ppb)	0.005	1000	5	6	Discharge from industrial chemical factories	Some people who use water containing 1,4-dichlorobenzene in excess of the MCL over many years may experience anemia, liver, kidney, or spleen damage, or changes in their blood.
1,1-Dichloroethane (ppb)	0.005	1000	5	3	Extraction and degreasing solvent; used in manufacture of pharmaceuticals, stone, clay and glass products; fumigant	Some people who use water containing 1,1-dichloroethane in excess of the MCL over many years may experience nervous system or respiratory problems.
1,2-Dichloroethane (ppt)	0.0005	1,000,000	500	400	Discharge from industrial chemical factories	Some people who use water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene (ppb)	0.006	1000	6	10	Discharge from industrial chemical factories	Some people who use water containing 1,1-dichloroethylene in excess of the MCL over many years may experience liver problems.
cis-1,2-Dichloroethylene (ppb)	0.006	1000	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination	Some people who use water containing cis-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.
trans-1,2-Dichloroethylene (ppb)	0.01	1000	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination	Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.
Dichloromethane (ppb)	0.005	1000	5	4	Discharge from pharmaceutical and chemical factories; insecticide	Some people who drink water containing dichloromethane in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.



Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
1,2-Dichloropropane (ppb)	0.005	1000	5	0.5	Discharge from industrial chemical factories; primary component of some fumigants	Some people who use water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
1,3-Dichloropropene (ppt)	0.0005	1,000,000	500	200	Runoff/leaching from nematocide used on croplands	Some people who use water containing 1,3-dichloropropene in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	0.3	1000	300	300	Discharge from petroleum refineries; industrial chemical factories	Some people who use water containing ethylbenzene in excess of the MCL over many years may experience liver or kidney problems.
Methyl- <i>tert</i> -butyl ether (ppb)	0.013	1000	13	13	Leaking from underground gasoline storage tanks; discharge from petroleum and chemical factories	Some people who use water containing methyl- <i>tert</i> -butyl ether in excess of the MCL over many years may have an increased risk of getting cancer.
Monochlorobenzene (ppb)	0.07	1000	70	200	Discharge from industrial and agricultural chemical factories and drycleaning facilities	Some people who use water containing monochlorobenzene in excess of the MCL over many years may experience liver or kidney problems.
Styrene (ppb)	0.1	1000	100	(100)	Discharge from rubber and plastic factories; leaching from landfills	Some people who drink water containing styrene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.
1,1,2,2-Tetrachloroethane (ppb)	0.001	1000	1	0.1	Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers	Some people who use water containing 1,1,2,2-tetrachloroethane in excess of the MCL over many years may experience liver or nervous system problems.
Tetrachloroethylene (PCE) (ppb)	0.005	1000	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
1,2,4-Trichlorobenzene (ppb)	0.005	1000	5	5	Discharge from textile-finishing factories	Some people who use water containing 1,2,4-trichlorobenzene in excess of the MCL over many years may experience adrenal gland changes.
1,1,1-Trichloroethane (ppb)	0.200	1000	200	1000	Discharge from metal degreasing sites and other factories; manufacture of food wrappings	Some people who use water containing 1,1,1-trichloroethane in excess of the MCL over many years may experience liver, nervous system, or circulatory system problems.
1,1,2-Trichloroethane (ppb)	0.005	1000	5	0.3	Discharge from industrial chemical factories	Some people who use water containing 1,1,2-trichloroethane in excess of the MCL over many years may experience liver, kidney or immune system problems.
Trichloroethylene [TCE] (ppb)	0.005	1000	5	0.8	Discharge from metal degreasing sites and other factories	Some people who use water containing trichloroethylene in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
Toluene (ppb)	0.15	1000	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks	Some people who use water containing toluene in excess of the MCL over many years may experience nervous system, kidney, or liver problems.
Trichlorofluoromethane (ppb)	0.15	1000	150	700	Discharge from industrial factories; degreasing solvent; propellant and refrigerant	Some people who use water containing trichlorofluoromethane in excess of the MCL over many years may experience liver problems.
1,1,2-Trichloro-1,2,2-trifluoroethane (ppm)	1.2	-	1.2	4	Discharge from metal degreasing sites and other factories; drycleaning solvent; refrigerant	Some people who use water containing 1,1,2-Trichloro-1,2,2-trifluoroethane in excess of the MCL over many years may experience liver problems.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG)	Major Sources in Drinking Water	Health Effects Language
Vinyl Chloride (ppt)	0.0005	1,000,000	500	50	Leaching from PVC piping; discharge from plastics factories; biodegradation byproduct of TCE and PCE groundwater contamination	Some people who use water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes (ppm)	1.750	-	1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent	Some people who use water containing xylenes in excess of the MCL over many years may experience nervous system damage.

Contaminant (CCR units)	Traditional MCL or [MRDL] in mg/L	To convert for CCR, multiply by	MCL or [MRDL] in CCR units	PHG, (MCLG) or [MRDLG]	Major Sources in Drinking Water	Health Effects Language
<b>Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors</b>						
Federal Rule						
TTHMs [Total Trihalomethanes] (ppb)	0.080	1000	80	n/a	By-product of drinking water chlorination	Some people who <b>drink</b> water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
Haloacetic Acids (ppb)	0.060	1000	60	n/a	Byproduct of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Bromate (ppb)	0.010	1000	10	(0)	Byproduct of drinking water disinfection	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminant (CCR units)	Traditional MCL or [MRDL] in mg/L	To convert for CCR, multiply by	MCL or [MRDL] in CCR units	PHG, (MCLG) or [MRDLG]	Major Sources in Drinking Water	Health Effects Language
Chloramines (ppm)	[MRDL = 4.0 (as Cl <sub>2</sub> )]	-	[MRDL = 4.0 (as Cl <sub>2</sub> )]	[MRDLG = 4 (as Cl <sub>2</sub> )]	Drinking water disinfectant added for treatment	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine (ppm)	[MRDL = 4.0 (as Cl <sub>2</sub> )]	-	[MRDL = 4.0 (as Cl <sub>2</sub> )]	[MRDLG = 4 (as Cl <sub>2</sub> )]	Drinking water disinfectant added for treatment	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorite (ppm)	1.0	-	1.0	(0.8)	Byproduct of drinking water disinfection	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
Chlorine dioxide (ppb)	[MRDL = 0.8 (as ClO <sub>2</sub> )]	1000	[MRDL = 800 (as ClO <sub>2</sub> )]	[MRDLG = 800 (as ClO <sub>2</sub> )]	Drinking water disinfectant added for treatment	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people experience anemia.
Control of DBP precursors (TOC)	TT	-	TT	n/a	Various natural and man-made sources	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.

## Appendix A-2: Regulated Contaminants with Secondary MCLs

Monitoring Required by Section 64449, Chapter 15, Title 22, California Code of Regulations

Constituent	Secondary MCL (units)	To convert to CCR, multiply by	MCL in CCR units	Typical Source of Contaminant
Aluminum	0.2 mg/L	1000	200 ug/L	Erosion of natural deposits; residual from some surface water treatment processes
Color	15 Units	-	15 Units	Naturally-occurring organic materials
Copper	1.0 mg/L	-	1.0 mg/L	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Foaming Agents [MBAS]	0.5 mg/L	1000	500 ug/L	Municipal and industrial waste discharges
Iron	0.3 mg/L	1000	300 ug/L	Leaching from natural deposits; industrial wastes
Manganese	0.05 mg/L	1000	50 ug/L	Leaching from natural deposits
Methyl-tert-butyl ether [MTBE]	0.005 mg/L	1000	5 ug/L	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor---Threshold	3 Units	-	3 Units	Naturally-occurring organic materials
Silver	0.1 mg/L	1000	100 ug/L	Industrial discharges
Thiobencarb	0.001 mg/L	1000	1 ug/L	Runoff/leaching from rice herbicide
Turbidity	5 Units	-	5 Units	Soil runoff
Zinc	5.0 mg/L	-	5.0 mg/L	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	1000 mg/L	-	1,000 mg/L	Runoff/leaching from natural deposits
Specific Conductance	1,600 $\mu\text{S/cm}$	-	1,600 $\mu\text{S/cm}$	Substances that form ions when in water; seawater influence
Chloride	500 mg/L	-	500 mg/L	Runoff/leaching from natural deposits; seawater influence
Sulfate	500 mg/L	-	500 mg/L	Runoff/leaching from natural deposits; industrial wastes

## Appendix A-3: State Regulated Contaminants with No MCLs

### *i.e.*, “Unregulated Contaminants”

Monitoring Required by Section 64450, Chapter 15, Title 22, California Code of Regulations

**Note:** Detected chemical results must be included in the CCR. Inclusion of the notification level and health effects language for levels above the notification level is only recommended, not required.

Chemical	Notification Level (ug/L)	Health Effects Language (Optional)
Boron	1,000	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Chromium VI (Hexavalent chromium)	n/a	n/a
Dichlorodifluoromethane (Freon 12)	1,000	Some people who drink water containing dichlorodifluoromethane far in excess of the notification level may experience neurological and cardiac effects. Long-term exposures to dichlorodifluoromethane resulted in smaller body weight in laboratory animals.
Ethyl-tert-butyl ether (ETBE)	n/a	n/a
Perchlorate	6	Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse affects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.
tert-Amyl-methyl ether (TAME)	n/a	n/a
tert-Butyl alcohol (TBA)	12	Some people who use water containing tert-butyl alcohol in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.
Trichloropropane (1,2,3-TCP)	0.005	Some people who use water containing 1,2,3-trichloropropane in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.
Vanadium	50	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

## Appendix A-4: Federal Regulated Contaminants with No MCLs

UCMR 1	
<b><u>List 1 – Assessment Monitoring</u></b>	<b><u>List 2 – Screening Survey</u></b>
2,4-dinitrotoluene	1,2-diphenylhydrazine
2,6-dinitrotoluene	2-methyl-phenol
Acetochlor	2,4-dichlorophenol
DCPA mono-acid degradate	2,4-dinitrophenol
DCPA di-acid degradate	2,4,6-trichlorophenol
4,4'-DDE	<i>Aeromonas</i>
EPTC	Alachlor ESA
Molinate	Diazinon
MTBE	Disulfoton
Nitrobenzene	Diuron
Perchlorate	Fonofos
Terbacil	Linuron
	Nitrobenzene
	Prometon
	RDX
	Terbufos

## Appendix B: California's Detection Limits for Purposes of Reporting (DLRs)

**Note:** These DLRs are for your information. Many of the DLRs on the following pages are for contaminants that you do not have to report in your CCR; however, the Department encourages you to report any of these that you find, particularly if there is (1) a proposed regulation for the detected chemical or (2) health guidance available (USEPA health advisory or Department State notification level).

Most contaminants with primary MCLs have DLRs that are in the Title 22 regulations. All other DLRs can be found on the Department's laboratory reporting forms, which are available on the Department's website via the bullet labeled "Hard Copy Reporting Forms" at <http://www.dhs.ca.gov/ps/ddwem/publications/library.htm>. The tables on the following pages are based on the below noted forms. Forms may be updated over time, so water systems should refer to Department's website for the most recent versions.

- General Mineral, Physical & Inorganic Chemical Analyses (06/06) – CDHS MEU 002-F GM (06/06)
- Radioactivity Analysis (09/06) – CDHS MEU 004-B RAD (09/06)
- Organic Chemical Analysis (06/06) – CDHS MEU 001-G OA (06/06)
- Base, Neutrals, and Acids Organic Analysis (06/06) – CDHS MEU 001-B BNA (06/06)

If you are uncertain about the inclusion of certain data, talk to your primacy agency. If you can't find a contaminant listed below and your lab analysis provides a detected value for that contaminant, the Department recommends that you report it in your CCR. If you're uncertain, always provide too much data rather than too little.



**GENERAL MINERAL, PHYSICAL & INORGANIC CHEMICAL ANALYSES (06/06)**

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	DLR
	mg/L	Hardness, (Total) as CaCO <sub>3</sub>	00900	
	mg/L	Calcium (Ca)	00916	
	mg/L	Magnesium (Mg)	00927	
	mg/L	Sodium (Na)	00929	
	mg/L	Potassium (K)	00937	
Total Cations	me/L	Value:		

	mg/L	Alkalinity, (Total) (as CaCO <sub>3</sub> equivalents)	00410	
	mg/L	Hydroxide (as OH)	71830	
	mg/L	Carbonate (as CO <sub>3</sub> )	00445	
	mg/L	Bicarbonate (as HCO <sub>3</sub> )	00440	
*	mg/L +	Sulfate (SO <sub>4</sub> )	00945	0.5
*	mg/L +	Chloride	00940	
45	mg/L	Nitrate (NO <sub>3</sub> )	71850	2.
2.0	mg/L	Fluoride (F) (Natural-Source)	00951	0.1
Total Anions	me/L	Value:		

	Std Units +	pH, Laboratory	00403	
**	umhos +	Specific Conductance (E.C.)	00095	
***	mg/L +	Total Filterable Residue @ 180 C (TDS)	70300	
15	UNITS	Color, Apparent (Unfiltered)	00081	
3	TON	Odor Threshold @ 60 C	00086	1.
5	NTU	Turbidity, Laboratory	82079	
0.5	mg/L +	MBAS	38260	

1000	ug/L	Aluminum (Al)	01105	50.
6	ug/L	Antimony	01097	6.
10	ug/L	Arsenic (As)	01002	2.
1000	ug/L	Barium (Ba)	01007	100.
4	ug/L	Beryllium	01012	1.
5	ug/L	Cadmium (Cd)	01027	1.
50	ug/L	Chromium (Total Cr)	01034	10.
1000	ug/L +	Copper (Cu)	01042	50.
300	ug/L +	Iron (Fe)	01045	100.
	ug/L	Lead (Pb)	01051	5.
50	ug/L +	Manganese (Mn)	01055	20.
2	ug/L	Mercury (Hg)	71900	1.
100	ug/L	Nickel	01067	10.
50	ug/L	Selenium (Se)	01147	5.
100	ug/L +	Silver (Ag)	01077	10.
2	ug/L	Thallium	01059	1.
	ug/L	Uranium	28011	1.
5000	ug/L	Zinc (Zn)	01092	50.

**GENERAL MINERAL, PHYSICAL & INORGANIC CHEMICAL ANALYSES (06/06)**

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	DLR
<b>ADDITIONAL ANALYSES</b>				
	NTU	Field Turbidity	82078	
	C	Source Temperature	00010	
		Langelier Index at Source Temp.	71814	
		Langelier Index at 60 C	71813	
	Std Units	Field pH	00400	
		Aggressiveness Index	82383	
	mg/L	Silica	00955	
	mg/L	Phosphate (as PO4)	00650	
	mg/L	Phosphate, Ortho (as PO4)	00660	
	mg/L	Iodide	71865	
		Sodium Absorption Ratio	00931	
7	MFL	Asbestos (*)	81855	.2
	ug/L	Boron	01020	100.
10,000	ug/L	Nitrate + Nitrite as Nitrogen (N)	A-029	400.
1,000	ug/L	Nitrite as Nitrogen (N)	00620	400.
	mg/L	Fluoride (Treatment Related-Distribution)	A-035	.1
150	ug/L	Cyanide	01291	100.
	mg/L	Ammonia	00612	
	ug/L	Lithium	01132	
	mg/L	Bromide	82298	
10	ug/L	Bromate	A-027	5.0
	ug/L	Carbon Dioxide	77000	
	ug/L	Molybdenum	01062	
	ug/L	Vanadium	01087	3.
	mg/L	Hydrogen Sulfide	71875	
	mg/L	Sulfide	00745	
	ug/L	Cobalt	01035	
	ug/L	Perchlorate	A-031	4.
	ug/L	Chlorate	A-037	20.
	mg/L	Chlorine Dioxide	50070	
1.0	mg/L	Chlorite	50074	.020
	mg/L	Total Organic Carbon (TOC)	00680	.30
	ug/L	Chromium, hexavalent (CrVI)	01032	1.

+ Indicates Secondary Drinking Water Standards

### ***RADIOACTIVITY ANALYSIS (09/06)***

<b>MCL</b>	<b>REPORTING UNITS</b>	<b>CHEMICAL</b>	<b>ENTRY #</b>	<b>DLR</b>
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<b><i>Title 22 California Code of Regulations, Section 64442 (22 CCR 64442)</i></b>				
15	pCi/l	Gross Alpha	01501	3.0
	pCi/l	Gross Alpha Counting Error	01502	
	pCi/l	Gross Alpha MDA95 *	A-072	
20	pCi/l	Uranium	28012	1.0
	pCi/l	Uranium Counting Error	A-028	
	pCi/l	Uranium MDA95	A-073	
	pCi/l	Radium 226	09501	1.0
	pCi/l	Radium 226 Counting Error	09502	
	pCi/l	Radium 226 MDA95	A-074	
	pCi/l	Radium 228	11501	1.0
	pCi/l	Radium 228 Counting Error	11502	
	pCi/l	Radium 228 MDA95	A-075	
5	pCi/l	Combined Ra 226 + Ra 228	11503	
	pCi/l	Combined Ra 226 + Ra 228 Counting Error	11504	
	pCi/l	Combined Ra 226 + Ra 228 MDA95	A-076	

<b><i>Title 22 California Code of Regulations, Section 64443 (22 CCR 64443)</i></b>				
50	pCi/l	Gross Beta	03501	4.0
	pCi/l	Gross Beta Counting Error	03502	
	pCi/l	Gross Beta MDA95	A-077	
4	mrem/yr	Gross Beta, Calculated Dose Equivalent **	A-071	
8	pCi/l	Strontium – 90	13501	2.0
	pCi/l	Strontium – 90 Counting Error	13502	
	pCi/l	Strontium – 90 MDA95	A-078	
20,000	pCi/l	Tritium	07000	1000.0
	pCi/l	Tritium Counting Error	07001	
	pCi/l	Tritium MDA95	A-079	

<b><i>RADON</i></b>				
	pCi/l	Radon 222	82303	100.0
	pCi/l	Radon 222 Counting Error	82302	

\* MDA95 is Minimum Detectable Activity at the 95% confidence level, per 22 CCR 64442 and 64443.

\*\* Gross Beta, Calculated Total Body or Organ Dose Equivalent, per 22 CCR 64443.

**ORGANIC CHEMICAL ANALYSIS (06/06)**

MCL μG/L	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8-TCDD (DIOXIN) REPORTED μG/L	ENTRY #	DLR μG/L
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<b>REGULATED ORGANIC CHEMICALS</b>			
80	Total Trihalomethanes (TTHMs)	82080	
	Bromodichloromethane	32101	1.0
	Bromoform	32104	1.0
	Chloroform (Trichloromethane)	32106	1.0
	Dibromochloromethane	32105	1.0
60	Haloacetic Acids (five) (HAA5)	A-049	
	Monochloroacetic Acid (MCAA)	A-042	2.0
	Dichloroacetic Acid (DCAA)	77288	1.0
	Trichloroacetic Acid (TCAA)	82723	1.0
	Monobromoacetic Acid (MBAA)	A-041	1.0
	Dibromoacetic Acid (DBAA)	82721	1.0

1	Benzene	34030	0.5
.5	Carbon Tetrachloride	32102	0.5
600	1,2-Dichlorobenzene (o-DCB)	34536	0.5
5	1,4-Dichlorobenzene (p-DCB)	34571	0.5
5	1,1-Dichloroethane (1,1-DCA)	34496	0.5
.5	1,2-Dichloroethane (1,2-DCA)	34531	0.5
6	1,1-Dichloroethylene (1,1-DCE)	34501	0.5
6	cis-1,2-Dichloroethylene (c-1,2-DCE)	77093	0.5
10	trans-1,2-Dichloroethylene (t-1,2-DCE)	34546	0.5
5	Dichloromethane (Methylene Chloride)	34423	0.5
5	1,2-Dichloropropane	34541	0.5
.5	Total 1,3-Dichloropropene	34561	0.5
300	Ethyl Benzene	34371	0.5
5	Methyl tert-Butyl Ether (MTBE)	46491	3.
70	Monochlorobenzene (Chlorobenzene)	34301	0.5
100	Styrene	77128	0.5
1	1,1,2,2-Tetrachloroethane	34516	0.5
5	Tetrachloroethylene (PCE)	34475	0.5
150	Toluene	34010	0.5
5	1,2,4-Trichlorobenzene	34551	0.5
200	1,1,1-Trichloroethane (1,1,1-TCA)	34506	0.5
5	1,1,2-Trichloroethane (1,1,2-TCA)	34511	0.5
5	Trichloroethylene (TCE)	39180	0.5
150	Trichlorofluoromethane (FREON 11)	34488	5.
1200	Trichlorotrifluoroethane (FREON 113)	81611	10.
.5	Vinyl Chloride (VC)	39175	0.5
	m-Xylene	81710	0.5
	m,p-Xylene	A-014	0.5
	o-Xylene	77135	0.5

**ORGANIC CHEMICAL ANALYSIS (06/06)**

<b>MCL μG/L</b>	<b>CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8-TCDD (DIOXIN) REPORTED μG/L</b>	<b>ENTRY #</b>	<b>DLR μG/L</b>
---------------------	--	--------------------	---------------------

<b>REGULATED ORGANIC CHEMICALS</b>			
	p-Xylene	78132	0.5
1750	Total Xylenes (m,p, & o)	81551	
.2	Dibromochloropropane (DBCP)	38761	0.01
.05	Ethylene Dibromide (EDB)	77651	0.02
2	Endrin	39390	0.10
.2	Lindane (gamma-BHC)	39340	0.20
30	Methoxychlor	39480	10.
3	Toxaphene	39400	1.
.1	Chlordane	39350	0.10
4	Diethylhexylphthalate (DEHP)	39100	3.
.01	Heptachlor	39410	0.01
.01	Heptachlor Epoxide	39420	0.01
1	Atrazine (AATREX)	39033	0.5
20	Molinate (ORDRAM)	82199	2.
4	Simazine (PRINCEP)	39055	1.
70	Thiobencarb (BOLERO)	A-001	1.
2	Alachlor (ALANEX)	77825	1.
18	Bentazon (BASAGRAN)	38710	2.
.2	Benzo(a)pyrene	34247	0.10
pg/L 30	2,3,7,8-TCDD (Dioxin) Units = picogram/L (pg/L)	34676	pg/L 5.0
70	2,4-D	39730	10.
50	2,4,5-TP (SILVEX)	39045	1.
18	Carbofuran (FURADAN)	81405	5.
200	Dalapon	38432	10.
7	Dinoseb (DNBP)	81287	2.
20	Diquat	78885	4.
400	Di(2-ethylhexyl) Adipate	A-026	5.
100	Endothall	38926	45.
700	Glyphosate	79743	25.
1	Hexachlorobenzene	39700	0.5
50	Hexachlorocyclopentadiene	34386	1.
50	Oxamyl (Vydate)	38865	20.
1	Pentachlorophenol (PCP)	39032	0.2
500	Picloram	39720	1.
.5	Polychlorinated Biphenyls, Total, as DCB	39516	0.5

**ORGANIC CHEMICAL ANALYSIS (06/06)**

MCL μG/L	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8-TCDD (DIOXIN) REPORTED μG/L	ENTRY #	DLR μG/L
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<b>UNREGULATED ORGANIC CHEMICALS</b>			
	Acetaldehyde	77001	
	tert-Amyl Methyl Ether (TAME)	A-034	3.
	Bromobenzene	81555	0.5
	Bromochloromethane	A-012	0.5
	Bromochloroacetic Acid (BCAA)	A-038	1.
	Bromodichloroacetic Acid (BDCAA)	A-039	1.
	Bromomethane (Methyl Bromide)	34413	0.5
	tert-Butyl Alcohol (TBA)	77035	2.
	n-Butylbenzene	A-010	0.5
	sec-Butylbenzene	77350	0.5
	tert-Butylbenzene	77353	0.5
	tert-Butyl Formate (TBF)	A-047	
	Chloroethane	34311	0.5
	2-Chloroethylvinyl Ether	34576	
	Chloromethane (Methyl Chloride)	34418	0.5
	2-Chlorotoluene	A-008	0.5
	4-Chlorotoluene	A-009	0.5
	Dibromochloroacetic Acid (CDBAA)	A-040	2.
	Dibromomethane	77596	0.5
	1,3-Dichlorobenzene (m-DCB)	34566	0.5
	Dichlorodifluoromethane (Freon 12)	34668	.5
	1,3-Dichloropropane	77173	0.5
	2,2-Dichloropropane	77170	0.5
	1,1-Dichloropropane	A-007	
	1,1-Dichloropropene	77168	0.5
	Diisopropyl Ether (DIPE)	A-036	3.
	1,4-Dioxane	A-032	3.
	1,2-Diphenylhydrazine	34346	
	Ethyl-tert-Butyl Ether (ETBE)	A-033	3.
	Glyoxal	A-048	
	Hexachlorobutadiene	34391	0.5
	Isopropyl alcohol	77015	
	Isopropylbenzene (Cumene)	77223	0.5
	p-Isopropyltoluene	A-011	
	2-Methylphenol	A-046	
	Naphthalene	34696	0.5
	Nitrobenzene	34447	
	Pentachloroethane	81501	0.5
	n-Propylbenzene	77224	0.5
	Terbufos	82088	
	1,1,1,2-Tetrachloroethane	77562	0.5

**ORGANIC CHEMICAL ANALYSIS (06/06)**

MCL μG/L	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8-TCDD (DIOXIN) REPORTED μG/L	ENTRY #	DLR μG/L
<b>UNREGULATED ORGANIC CHEMICALS</b>			
	Tribromoacetic Acid (TBAA)	A-043	4.
	1,2,3-Trichlorobenzene	77613	0.5
	1,3,5-Trichlorobenzene	77614	
	1,2,3-Trichloropropane	77443	0.005
	1,2,3-Trimethylbenzene	77221	
	1,2,4-Trimethylbenzene	77222	0.5
	1,3,5-Trimethylbenzene	77226	0.5
	Methyl Ethyl Ketone (MEK, Butanone)	81595	5.
	Methyl Isobutyl Ketone (MIBK)	81596	5.
	bis (2-Chloroethyl) Ether	34273	
	Acetochlor	04240	
	Aldicarb (TEMIK)	39053	3.
	Aldicarb Sulfone	A-020	4.
	Aldicarb Sulfoxide	A-019	3.
	Aldrin	39330	0.075
	Bromacil (HYVAR)	82198	10.
	Butachlor	77860	0.38
	Carbaryl (Sevin)	77700	5.
	Carbon Disulfide	77041	0.5
	Chlorothalonil (DACONIL, BRAVO)	70314	5.
	DCPA (total di & mono acid degradates)	A-045	
	Diazinon	39570	
	Dicamba (BANVEL)	82052	1.5
	Dieldrin	39380	0.02
	Dimethoate (CYGON)	38458	
	Diuron	39650	
	Fonofos	04095	
	3-Hydroxycarbofuran	A-021	3.
	Methomyl	39051	2.
	Metolachlor	39356	
	Metribuzin	81408	
	Prometryn (CAPAROL)	39057	2.
	Propachlor	38533	0.5
	Terbacil	38882	
.5	PCB-1016 (as decachlorobiphenyl (DCB))	34671	.50
.5	PCB-1221 (as DCB)	39488	.50
.5	PCB-1232 (as DCB)	39492	.50
.5	PCB-1242 (as DCB)	39496	.50
.5	PCB-1248 (as DCB)	39500	.50
.5	PCB-1254 (as DCB)	39504	.50
	PCB-1260 (as DCB)	39508	

**ORGANIC CHEMICAL ANALYSIS (06/06)**

MCL μG/L	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8-TCDD (DIOXIN) REPORTED μG/L	ENTRY #	DLR μG/L
<b>UNREGULATED ORGANIC CHEMICALS</b>			
	Acrylonitrile (Acritet)	34216	
	Parachlorometa cresol	34453	
	4,6-Dinitro-o-cresol	A-050	
	N-Nitrosopyrrolidine (NPYR)	78206	
	<i>Hormones</i>		
	Ethinyl estradiol	A-051	
	17-B estradiol	A-052	
	Estrone	A-053	
	<i>“Industrial” Endocrine Disruptors</i>		
	Bisphenol A	81651	
	Nonylphenol	77745	
	Nonylphenol polyethoxylate	A-054	
	Octylphenol	A-055	
	Octylphenol polyethoxylate	A-056	
	Polybrominated diphenyl ethers	A-057	
	<i>Pharmaceuticals and Surrogates</i>		
	Acetaminophen	A-058	
	Amoxicillin	A-059	
	Azithromycin	A-060	
	Caffeine	81436	
	Carbamazepine	A-061	
	Ciprofloxacin	A-062	
	Ethylenediamine tetra-acetic acid (EDTA)	78151	
	Gemfibrozil	A-063	
	Ibuprofen	A-064	
	Iodinated contrast media	A-065	
	Lipitor	A-066	
	Methadone	A-067	
	Morphine	A-068	
	Salicylic acid	77403	
	Triclosan	A-069	



**BASE, NEUTRALS, AND ACIDS ORGANIC ANALYSIS (06/06)**

TEST METHOD	MCL μG/L	CHEMICAL ALL CHEMICALS REPORTED μG/L	ENTRY #	DLR μG/L
		Acenaphthene	34205	5.00
		Acenaphthylene	34200	5.00
		Acetone	81552	
		Anthracene	34220	
(*)		Aldrin	39330	.075
		Benzo (a) Anthracene	94526	10.00
		Benzo (b) Fluoranthene	34230	10.00
		Benzo (k) Fluoranthene	34242	10.00
(*)	.2	Benzo (a) Pyrene	34247	.10
		Benzo (ghi) Perylene	34521	10.00
		Benzyl Butyl Phthalate	34292	10.00
		beta-BHC	39338	.05
		delta-BHC	34259	.05
(*)		bis (2-Chloroethyl) Ether	34273	
		bis (2-Chloroethoxy) methane	34278	5.00
		bis (2-Chloroisopropyl) Ether	34283	5.00
		4-Bromophenyl Phenyl Ether	34636	5.00
(*)	0.1	Chlordane	39350	.10
		2-Chloronaphthalene	34581	5.00
		4-Chlorophenyl phenyl Ether	34641	5.00
		Chrysene	34320	5.00
(*)	4	Diethylhexylphthalate (DEHP)	39100	3.00
		4,4'-DDD	39310	.02
		4,4'-DDE	39320	.01
		4,4'-DDT	39300	.02
		Dibenzo (a,h) anthracene	34556	5.00
		di-n-Butylphthalate	39110	5.00
(*)	600	1,2-Dichlorobenzene (o-DCB)	34536	.50
(*)		1,3-Dichlorobenzene (m-DCB)	34566	.50
(*)	5	1,4-Dichlorobenzene (p-DCB)	34571	.50
		3,3-Dichlorobenzidine	34631	20.00
		1,4-Dichlorobutane	77285	
(*)		Dichlorodifluoromethane (Freon 12)	34668	.50
(*)		Dieldrin	39380	.02
		Diethylbenzene	78214	
		Diethylphthalate	34336	5.00
		bis-1,1-Dimethylethylperoxide	A-018	
		bis-1,1-Dimethylperoxide	A-015	
		Dimethyl phthalate	34341	5.00
		2,4-Dinitrotoluene	34611	5.00
		2,6-Dinitrotoluene	34626	5.00
		di-n-Octylphthalate	34596	5.00
		Endosulfan Sulfate	34351	.05

**BASE, NEUTRALS, AND ACIDS ORGANIC ANALYSIS (06/06)**

TEST METHOD	MCL μG/L	CHEMICAL ALL CHEMICALS REPORTED μG/L	ENTRY #	DLR μG/L
		Endrin Aldehyde	34366	.05
		Fluoranthene	34376	5.00
		Fluorene	34381	5.00
(*)	.01	Heptachlor	39410	.01
(*)	.01	Heptachlor Epoxide	39420	.01
(*)	1	Hexachlorobenzene	39700	0.50
(*)		Hexachlorobutadiene	34391	.50
		Hexachloroethane	34396	5.00
		Hexanol	81591	
		Hydrazine	81313	
		Indeno (1,2,3-cd) Pyrene	34403	10.00
		Isophorone	34408	10.00
		Kerosine	78878	
(*)		Naphthalene	34696	.50
		1-Naphthol	77441	
(*)		Nitrobenzene	34447	
		N-Nitrosodi-n-Propylamine	34428	
		n-Octacosane	78116	
(*)	.5	PCB-1016 (as decachlorobiphenyl (DCB))	34671	.50
(*)	.5	PCB-1221 (as DCB)	39488	.50
(*)	.5	PCB-1232 (as DCB)	39492	.50
(*)	.5	PCB-1242 (as DCB)	39496	.50
(*)	.5	PCB-1248 (as DCB)	39500	.50
(*)	.5	PCB-1254 (as DCB)	39504	.50
(*)	.5	PCB-1260 (as DCB)	39508	.50
		Phenanthrene	34461	5.00
		Propane	82358	
		Pyrene	34469	5.00
(*)	3	Toxaphene	39400	1.00
(*)		1,2,4-Trichlorobenzene	34551	.50
		Vinyl Acetate	77057	

<b>ACID EXTRACTANTS</b>				
		4-Chloro-3-Methylphenol	34452	5.00
		2-Chlorophenol	34586	5.00
		2,4-Dichlorophenol	34601	5.00
		2,4-Dimethylphenol	34606	5.00
		2,4-Dinitrophenol	34616	5.00
		2-Methyl-4,6-Dinitrophenol	34657	5.00
		2-Nitrophenol	34591	5.00
		4-Nitrophenol	34645	5.00
(*)	1	Pentachlorophenol (PCP)	39032	.20
		Phenol (Carbolic Acid)	34694	5.00
		2,4,6-Trichlorophenol	34621	5.00

**BASE, NEUTRALS, AND ACIDS ORGANIC ANALYSIS (06/06)**

TEST METHOD	MCL μG/L	CHEMICAL ALL CHEMICALS REPORTED μG/L	ENTRY #	DLR μG/L
<b>ADDITIONAL EXTRACTABLE PARAMETERS</b>				
		Benzidine	39120	5.00
		alpha-BHC	39337	.01
(*)	2	gamma-BHC	39340	.20
		Endosulfan I	34361	.01
		Endosulfan II	34356	.01
(*)	2	Endrin	39390	.10
(*)	50	Hexachlorocyclopentadiene	34386	1.00
		<i>Nitrosamines</i>		
		N-Nitrosodiethylamine (NDEA)	78200	.002
		N-Nitrosodimethylamine (NDMA)	34438	.002
		N-Nitrosodi-n-butylamine (NDBA)	78207	
		N-Nitrosodi-n-propylamine (NDPA)	34428	
		N-Nitrosodiphenylamine	34433	
		N-Nitrosomethylethylamine (NMEA)	A-070	
		N-Nitrosopiperidine (NPIP)	73283	
(*)		N-Nitrosopyrrolidine (NPYR)	78206	

(\*) Indicates chemicals also reportable on the Organic Chemical Analysis Form

## Appendix C: Interpreting Monitoring Data

### ⚙ 1 sampling site/1 sampling date [Regulation section 64481(d)(2)(D)1.A.]:

March 1998 – 0.003

- Report in Table: detected level = 0.003. Report no range.
- 

### ⚙ 1 sampling site/multiple samples [Regulation section 64481(d)(2)(D)1.A.]:

Xylenes	January	April	July	October	Well Avg
Well 1	2	3	7	ND	3

- If source is being reported individually in the Table, report in Table:

average detected level = 3 AND range = ND - 7.

---

### ⚙ Multiple sampling sites/1 sampling date [Regulation section 64481(d)(2)(D)1.B.]:

Barium	Feb 1998
Well 1	0.60
Well 2	0.46
Well 3	n/d

- Report in Table: average detected level = 0.35 AND range = n/d - 0.60.

*If these sources enter the distribution system at the same point, a flow-weighted average may be reported instead of the average computed by assuming all wells contribute equally, as follows:*

$$\text{Weighted average} = 0.2(0.60) + 0.4(0.46) + 0.4(n/d) = 0.30.$$

- Report in Table: average detected level = 0.30 AND range = n/d - 0.60.
- 

### ⚙ Multiple sampling sites/one or more sampled more than once in a calendar year (compliance: 4 quarter or 6 month average) [Regulation section 64481(d)(2)(D)1.C.]:

Xylenes	Jan	April	July	October	Well Avg
Well 1	2	3	7	n/d	3
Well 2	Not sampled	Not sampled	Not sampled	8	8
Well 3	Not sampled	12	30	18	20
All wells					10.3

- Report in Table: detected level (average of all well averages) = 10.3 AND range: = n/d - 30.

- ⚙ **Multiple sampling sites/multiple sampling dates (compliance: running annual average on individual source basis)** [Regulation section 64481(d)(2)(D)2.]:

Xylenes	1 <sup>st</sup> Quarter*		2 <sup>nd</sup> Quarter*		3 <sup>rd</sup> Quarter		4 <sup>th</sup> Quarter	
	Sample Result	Running Average*	Sample Result	Running Average*	Sample Result	Running Average*	Sample Result	Running Average
Well 1	74	42	60	47	28	50	43	53
Well 2	36	26	12	21	6	17	9	16

\*Running averages are calculated from data for previous quarters that are not shown in this table.

- Report in Table: highest running annual average = 53 AND range = 6 - 74.

- ⚙ **Multiple sampling sites/multiple sampling dates (compliance: running annual average on system-wide basis-TTHMs)** [Regulation section 64481(d)(2)(D)3.]:

Total Trihalomethanes	2 <sup>nd</sup> Quarter 2005	3 <sup>rd</sup> Quarter 2005	4 <sup>th</sup> Quarter 2005	1 <sup>st</sup> Quarter 2006	2 <sup>nd</sup> Quarter 2006	3 <sup>rd</sup> Quarter 2006	4 <sup>th</sup> Quarter 2006
Site #1	---	---	---	45	60	125	70
Site #2	---	---	---	40	55	115	60
Site #3	---	---	---	45	60	105	70
Site #4	---	---	---	50	65	135	80
Quarterly Average	55	125	65	45	60	120	70
Running Annual Average	---	---	---	73	74	73	74

- Report in Table: highest running annual average = 74 AND range 40 - 135.

Notes:

- The last 3 quarters of the 2005 are shown because you need them to compute the running annual average. The range would include only detection data from 2006, unless one of the values from the previous year was so extraordinary that consumers would need it to understand the reported annual average.
- If your running annual average exceeds 80, your report must include notification of a MCL violation and the health effects language for TTHMs Appendix A-1.

- ⚙ **Fluoride** [Regulation section 64481(d)(2)(D)1.A. and B.]:

Contaminant	MCL	PHG	Our H2O	Range	Sample Date	Violation	Typical Source
Fluoride (naturally occurring)**	2.0	1	0.3	---	---	---	erosion of natural deposits

\*\* (Sample wording): *Our water system treats your water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained within a range of 0.6 to 0.9 ppm, as required by Department regulations.*

⚙ **Lead** [Regulation section 64481(d)(2)(F)]:

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
July 1998	n/d	n/d	8	12	19	3	n/d	n/d	4	22

- Report in Table: 90<sup>th</sup> percentile = 19, # of sites sampled = 10, AND # of sites above action level (15) = 2.
- For small systems collecting 5 samples, if the average of the two highest samples is below the reporting level of 5 ppb, then there is no need to report any detection for lead. If there is only one sample with a detection, then the detected level is divided by 2 and if the result is at or above 5 ppb, then it should be reported on the CCR.

Notes:

- If your system takes 20 or more samples and more than 5% (and up to and including 10%) of the samples are above the regulatory action level, you must include the educational language provided on page 18.
- Water quality parameter data that you collect in association with the Lead and Copper Rule should not be included in the report.

⚙ **Turbidity** [Regulation section 64481(d)(2)(E)]:

When reporting turbidity as an indicator of filtration performance, systems must report the highest single measurement and the lowest monthly percentage of samples meeting the requirements specified for that technology. In this situation, you may want to report the data in 2 rows of your table as follows:

For conventional filtration, direct filtration, or diatomaceous earth filtration:

	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
Turbidity	TT = 5.0 NTU		1 NTU	n/a			soil runoff
	TT = 95% of samples $\leq$ 0.5 NTU	n/a	96%	n/a			

For slow sand filtration:

	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
Turbidity	TT = 5.0 NTU		1 NTU	n/a			soil runoff
	TT = 95% of samples $\leq$ 1.0 NTU	n/a	96%	n/a			

For systems subject to the federal Interim Enhanced Surface Water Treatment Rule or federal Long Term 1 Enhanced Surface Water Treatment Rule (system using surface water or GWUDI and uses conventional or direct filtration):

	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
Turbidity	TT = 1 NTU		1 NTU	n/a			soil runoff
	TT = 95% of samples $\leq$ 0.3 NTU	n/a	96%	n/a			

## ⚙ **Radioactivity** [Regulation section 64481(c)(1)]:

Gross alpha monitoring results are used for two purposes: To determine compliance with the gross alpha MCL and to screen for radium and uranium. In both cases, an average of four quarterly samples is used unless the samples have been composited.

*Determining MCL compliance:* Counting errors and minimum detectable activity (MDA) are not included in the averages of gross alpha, uranium, or radium data used to determine compliance with the MCLs. Therefore, they are not included in the data reported in the CCR.

*Screening to determine if radium and uranium testing is necessary:* When the gross alpha data is averaged to determine whether radium or uranium testing should be conducted, counting errors are added in and the MDA is substituted in for any zero result. Confusion about radioactivity data reporting for the CCR has resulted from the way the average is calculated for screening purposes, but this approach is not appropriate for CCR data reporting.

---

## ⚙ **Sodium and Hardness** [Regulation section 64481(c)(4)]:

Although sodium and hardness do not have MCLs, they are of interest to many consumers who are concerned about sodium intake and may believe that the hardness of the water could affect their health. Therefore, monitoring is required and detections should be included in the table(s) along with the other data on water quality. Since there are no MCLs/PHGs/MCLGs, just indicate that in the table in some way (e.g., none, N/A).

No “typical source” is required, though a system may wish to include information such as:

*“Hardness” is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring.*

*“Sodium” refers to the salt present in the water and is generally naturally occurring.*

---

## ⚙ **NOTE: How to determine “sample result” for a single sample with 1 or 2 confirmation samples (compliance: Alone or averaged with other samples)**

Xylenes	Initial Sample	Confirmation 1	Confirmation 2	Sample Result
Well 1	37	ND	16	26.5
Well 2	18	6	not needed	12
Well 3	7	ND	ND	ND

## Appendix D: Certification Form (suggested format)

### Consumer Confidence Report Certification Form (to be submitted with a copy of the CCR)

Water System Name: \_\_\_\_\_

Water System Number: \_\_\_\_\_

The water system named above hereby certifies that its Consumer Confidence Report was distributed on \_\_\_\_\_ (date) to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the Department of Health Services.

Certified by:      Name: \_\_\_\_\_  
                         Signature: \_\_\_\_\_  
                         Title: \_\_\_\_\_  
                         Phone Number: (      ) \_\_\_\_\_ Date: \_\_\_\_\_

---

Water systems are not required to report the following information, but may do so by checking all items that apply:

- ☐ CCR was distributed by mail or other direct delivery methods. Specify other direct delivery methods used: \_\_\_\_\_  
\_\_\_\_\_
- ☐ “Good faith” efforts were used to reach non-bill paying consumers. Those efforts included the following methods:
- ☐ Posting the CCR on the Internet at www. \_\_\_\_\_
  - ☐ Mailing the CCR to postal patrons within the service area (attach zip codes used)
  - ☐ Advertising the availability of the CCR in news media (attach copy of press release)
  - ☐ Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)
  - ☐ Posted the CCR in public places (attach a list of locations)
  - ☐ Delivery of multiple copies of CCR to single bill addresses serving several persons, such as apartments, businesses, and schools
  - ☐ Delivery to community organizations (attach a list of organizations)
- ☐ For systems serving at least 100,000 persons: Posted CCR on a publicly-accessible internet site at the following address: www. \_\_\_\_\_
- ☐ For investor-owned utilities: Delivered the CCR to the California Public Utilities Commission



## Appendix E: List of Translations of “Note of Importance” for CCR

Pursuant to Section 64481(1), Chapter 15, Title 22, a utility’s CCR is required to include the following sentence translated into Spanish and any language that is spoken by a non-English speaking group that exceeds 1,000 residents or 10% of the residents in a community.

*“This report contains important information about your drinking water. Translate it, or speak with someone who understands it.”*

For your use, the Department is providing as many translations as it is able to obtain. If a utility has a translation not available on this website that it would like to share with other utilities, please contact Michael McKibben at (619) 525-4023 or [mmckibbe@dhs.ca.gov](mailto:mmckibbe@dhs.ca.gov).

### Spanish

**Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.**

### Hmong

**Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.**

### Tagalog

**Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.**

### Farsi

این اطلاعیه شامل اطلاعات مهمی راجع به آب آشامیدنی است. اگر نمیتوانید این اطلاعات را به زبان انگلیسی بخوانید لطفاً از کسی که میتواند داری بگیرد تا مطالب را برای شما به فارسی ترجمه کند.

### French

**Cé rapport contient des information importantes concernant votre eau potable. Veuillez traduire, ou parlez avec quelqu' un qui peut le comprendre.**

### Arabic

**”هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب).  
ترجم التقرير , أو تكلم مع شخص يستطيع أن يفهم التقرير.“**

### Polish

**Ta broszura zawiera wazne informacje dotyczace jakosci wody do picia. Przetlumacz zawartosc tej broszury lub skontaktuj sie z osoba ktora pomoze ci w zrozumieniu zawartych informacji.**

### Russian

**Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.**

Hebrew

הדו"ח הזה מכיל מידע חשוב לגבי מי השתייה שלך  
תרגם את הדו"ח או דבר עם מישהו שמבין אותו

Chinese (Traditional)

此份有關你的食水報告,內有重要資料和訊息,請找  
他人為你翻譯及解釋清楚。

Chinese (Simplified)

此份有关你的食水报告,内有重要资料和讯息,请找  
他人为你翻译及解释清楚。

Punjabi

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਣ ਹੈ ।  
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋਂ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਓ ।

Vietnamese

Chi tiết này thật quan trọng.  
Xin nhờ người dịch cho quý vị.

Hindi

यह सूचना महत्वपूर्ण है ।  
कृपा करके किसी से :सका अनुवाद करायें ।

Japanese

この情報は重要です。  
翻訳を依頼してください。

Korean

이 안내는 매우 중요합니다.  
본인을 위해 번역인을 사용하십시오.

Greek

Η κατούμενη αναφορά παρουσιάζει  
σπουδαιές πληροφορίες για το  
ποσιμο νερό σας. Προκακλώ να  
το μεταφράσετε ή να το  
σξολειασετε με καποιον που το  
καταλαβαινη απολητως.

Laotian

ລາຍງານນີ້ມີຂໍ້ມູນສໍາຄັນກ່ຽວກັບນໍ້າປະປາຂອງທ່ານ. ຈົ່ງໃຫ້ຄົນອື່ນຮູ້ຄວາມໃຫ້ທ່ານ,  
ຫລືໃຫ້ປຶກສາກັບຄົນໃດຄົນໜຶ່ງທີ່ເຂົ້າໃຈເລື່ອງ.

Italian

**Questo rapporto contiene informazioni inportanti che riguardano la vostra acqua  
potabile. Traducetelo, o parlate con una persona qualificata in grado di spiegarvelo.**

Khamer

របាយការណ៍នេះមានព័ត៌មានសំខាន់ៗ  
នៃអំពីទឹកបរិភោគ ។ សូមបកប្រែ  
ឬពិគ្រោះជាមួយអ្នកដែលមើលយល់  
របាយការណ៍នេះ ។